

Application No. 09/993733  
Amendment dated January 24, 2006  
Reply to Office Action of January 12, 2006

Docket No.: 013190.0101PTUS

### REMARKS

The specification was objected to under 35 U.S.C. 132(a) on the grounds that the amendment filed April 14, 2003 introduces new matter into the disclosure. This objection is respectfully traversed. The amendment objected to was made to the claims, not the specification; thus, it is not seen how the specification can be objected to. In any case, see the response to the 35 U.S.C. §112 rejection below.

Claims 39 – 42 were rejected under 35 USC §112, first paragraph, as failing to comply with the written description requirement. This rejection is respectfully traversed. The Office Action states that the disclosure in the specification of 10% to 70% gas by volume does not provide support for 32% gas by volume. This statement is not correct. The MPEP states that a disclosure of a range of 25% to 60% supports a range of 35% to 60%. In other words, the disclosure of a range supports all sub-ranges within the range. MPEP 2163.05III. See also *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976), cited in the MPEP selection, and *Union Oil of Cal. V. Atlantic Richfield Co.*, 208 F. 3d 989, 997, 54 USPQ2d 1227, 1232-33 (Fed.Cir. 2000). This type of amendment has always been viewed by the USPTO and the courts as a narrowing amendment and deemed to be supported by the specification under 35 USC §112. See *Rees Bros., Inc. v U.S. Laminating Corp.*, 157 USPQ 235, 245, at headnote 7. However, the range has been changed to 32% to 70% to make sure that an argument is not raised that the range 32% or more is not supported by the specification, even though the specification discloses 40% or more and 50% or more. This amendment is supported at page 4, lines 14 and 15, and page 5, line 32.

The Office Action also repeats verbatim the 35 USC §103 rejections from the August 4, 2004 Office Action. These rejections were responded to in the response filed 11/04/04, which responses are repeated below for completeness. These rejections were responded to more thoroughly in the Appeal Brief filed in this case on October 21, 2005, which Appeal Brief is incorporated herein by reference.

Claims 1 – 12, 14 – 17, 22, 25 – 28, and 39 – 42 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sobolev (US 5,30,488) in view of Fitzgerald et al. (US 4,842,241). This rejection is respectfully traversed.

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In the Advisory Action, the Examiner stated that the previous declaration of Mr. Rahe did not compare the concrete formwork panel that is the subject of the present application with the closest prior art. Mr. Rahe has now done that. Exhibit C shows the results for the best metal/plastic laminate concrete formwork panel that Mr. Rahe has tested, and summarizes the tests on other metal/plastic laminates he has tested. See Supplemental Declaration of Edward Rahe, paragraphs 7 - 16. It is not known if this summary includes the panel of Sobolev; if it does not, the only conclusion is that the panel of Sobolev was never used as a concrete formwork panel, because, as Mr. Rahe says in paragraph 10, if it was, he would have seen it.

The Supplemental Declaration of Edward Rahe points out that the  $\frac{3}{8}$ -inch panel of the invention tested 10% better than the  $\frac{1}{2}$ -inch panel of the best previous plastic/metal laminate panel. See Supplemental Declaration of Edward Rahe, paragraph 13. The  $\frac{3}{8}$ -inch panel of the invention tested 25% better than the best previous plastic/metal laminate of the same thickness. See Supplemental Declaration of Edward Rahe, paragraph 15. The Supplemental Declaration of Edward Rahe also states that all other metal/plastic panels tested two to three times worse than the panel according to the invention. He gives one example of this in paragraph 11 of the Supplemental Declaration of Edward Rahe. Mr. Rahe points out that this is "really amazing" because it goes against the grain of years of testing of concrete formworks panels. See Supplemental Declaration of Edward Rahe, paragraph 16. It could not be clearer that the test results for the concrete formwork panel according to the invention meet both the superior and the unexpected results requirement of the patent law, either of which are sufficient to overcome a prima facie case of obviousness based on structural similarity. See MPEP 716.02 - 716.02(g) and 2144.09 and the cases cited therein.

With regard to claim 1, Sobolev does disclose the use of steel in a laminate panel, as the Examiner points out. However, the disclosure of steel is minimal. In a patent with ten pages of figures and 38 columns of specification and in which 51 examples of laminates are given, steel is only used in one example, and that example failed. The Examiner argues that a similar panel with aluminum also failed and that the application discloses that another aluminum laminate panel made with a "slightly more flexible epoxy resin" did not fail, and concludes that that suggests that a steel panel made with a "slightly more flexible epoxy resin" would not fail. The Supplemental Declaration of Edward Rahe points out that few plastic and plastic laminate panels hold up to the deflection criteria; therefore, to assume that a particular panel will work is pure speculation. In particular, he states that the assumption of the Examiner is erroneous, and that one skilled in the art

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would not utilize a panel, such as the one in Sobolev, that showed "slight cracking". See Supplemental Declaration of Edward Rahe, paragraphs 21 – 24.

The Supplemental Declaration of Edward Rahe also shows that one skilled in the art would not combine Fitzgerald et al. and Sobolev because Fitzgerald et al. does not disclose a concrete formwork panel but a mold. To one skilled in the art, a concrete formwork panel is a panel that can be connected to other panels to make a formwork and then disassembled and used again. It points out that Fitzgerald et al. internally supports this position at column 1, line 7, where it states that the molds are only used for forming test specimens. He concludes that one skilled in the art of concrete formwork panels would not read Fitzgerald et al. and Sobolev and come to the conclusion that high-density polyethylene could be laminated with steel to make a concrete formwork panel because: a) the combination does not teach that high-density polyethylene can be laminated with steel; and b) that such a lamination would not stand up to abuse. Since his experience with plastic laminates is that they generally do not work, such a conclusion based on Sobolev and Fitzgerald et al. is pure speculation. See Supplemental Declaration of Edward Rahe, paragraphs 17 – 21. Thus, to one skilled in the art, the combination of Sobolev and Fitzgerald et al. does not even establish a *prima facie* case of obviousness, because there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine teachings to make such a laminate, and because there is not a reasonable expectation of success. MPEP 4142 and MPEP 2143 – 2143.03.

For the above reasons, claim 1 is patentable. Claims 2 – 12, 14 – 17, 22, and 25 – 28 all depend on claim 1, and include all of the limitations of claim 1; therefore, they are patentable at least for that reason. *In re Fire*, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988) at headnote 4 and MPEP 2143.03. In addition, none of the limitations in the dependent claims are shown in the art for panels made of steel facing with a high-density polyethylene core. Certain of the claims, such as the foam density limitations of claims 11 and 12, include limitations nowhere disclosed in any of the references for *any* panel. If a claim includes just one limitation that is not disclosed in the prior art, the claim is patentable. See MPEP 2143.03; *In re Glass*, 176 USPQ 489, 491 (CCPA 1973); *In re Saether*, 181 USPQ 36, 39 (CCPA 1974) at headnote 1; *Ex parte Paersen*, 228 USPQ 217, 218 (PO Bd Pat App & Inter 1985) at headnote 1; and *In re Fire*, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988) at headnote 3. The Examiner says that one could get these by experiment and cites *In re Bosch*. The

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*Boesch* facts were quite different than those at present. In *Boesch*, the claimed optimized values were all within ranges disclosed in the prior art, and the prior art suggested changing the values in the direction covered by the claims. Here, the values claimed are outside the ranges in the prior art. Likewise, all other allegations of the Examiner that specific limitations are obvious without showing a reference that suggests it, such as the limitations of claims 6 – 8, 14 – 17, and 22, are challenged on the basis that the Examiner's opinion is not a suitable replacement for a reference. *Ex Parte Noid*, 158 USPQ 237, 239 (POBA 1967) at headnote 2.

With respect to claims 39 – 42, these claims do not appear to be addressed by the Office Action except in paragraph 21; therefore, we shall address them below.

Claim 18 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Sobolev in view of Fitzgerald et al. and further in view of Toedter. This rejection is respectfully traversed. Claim 18 is dependent on claim 14 which is dependent on claim 1. Both claims 1 and 14 are patentable for the reasons given in the Supplemental Response; therefore, claim 18 also is patentable for this reason. *In re Fire*, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988) at headnote 4 and MPEP 2143.03. In addition, none of the cited references show a double-thick flange on the end of a panel. Toedter is cited not to show a double-thick flange, but to provide motivation for making a double-thick flange. It shows a decorative panel bent over on itself to form a double-thick panel, but this is taught to provide a finished appearance in the decorative panel and resistance to crush. See column 1, lines 47 – 57. Since the device claimed is a concrete formwork panel in which the motivation of a finished appearance is irrelevant, and resistance to crush is not a problem, since the single-thickness panel is sufficiently crush resistant, Toedter cannot effectively provide motivation.

Claims 19 and 20 were rejected under 35 USC 103(a) as being unpatentable over Sobolev in view of Fitzgerald et al. and further in view of Lee (US 6,295,786). This rejection is respectfully traversed. These claims depend on claim 1, which is patentable; therefore, they also are patentable. *In re Fire*, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988) at headnote 4 and MPEP 2143.03. In addition, Lee has nothing to do with concrete, and the idea of even making a columnar panel is merely added as an afterthought. The Examiner is using the hindsight of the invention itself to find this combination.

Claim 23 was rejected under 35 USC 103(a) as being unpatentable over Sobolev in view of Fitzgerald et al. and further in view of Yoshida et al. (US 6,117,521). This rejection is respectfully

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traversed. This claim depends on claim 1, which is patentable; therefore, it also is patentable. *In re Fire*, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988) at headnote 4 and MPEP 2143.03. In addition, none of the references discloses a rib attached to a metal backing layer.

Claims 23 and 24 were rejected under 35 USC 103(a) as being unpatentable over Sobolev in view of Fitzgerald et al. and further in view of Gallis et al. (US 4,473,209). This rejection is respectfully traversed. These claims depend on claim 1, which is patentable for the reasons given above; therefore, they also are patentable. *In re Fire*, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988) at headnote 4 and MPEP 2143.03.

Claims 39 – 41 were rejected under 35 USC 103(a) as being unpatentable over Sobolev. This rejection is respectfully traversed. With respect to claim 39, the limitation of a foam plastic with 32% or more gas by volume is not shown or suggested in the art. As discussed in more detail below, only one example of a foam plastic gas by volume is given in Sobolev, and that is 26%. No other gas per volume foamed plastic data is given in Sobolev. The Examiner states that Sobolev does not give a range, but only shows that variation of volume of gas per unit volume of foam core layer is possible. That is not true, since only one data point is given. The exact statement of Sobolev is that “In a number of cases, core density reductions of 30% were readily achieved without loss of important laminate properties.” The phrase “In a number of cases” indicates that, in the majority of cases, important laminate properties were lost. The fact that no cases of core density reductions of more than 26% were given in Sobolev does create a maximum of range. Further, the statement implies that, in the range above the core reductions of 30%, important laminate properties were lost in all cases. The Supplemental Declaration of Edward Rahe is a declaration by one skilled in the art and supports this position. See Supplemental Declaration of Edward Rahe, paragraphs 25 – 27.

The Supplemental Declaration of Edward Rahe also states that delamination is very serious in concrete formwork panels. Further, the Supplemental Declaration of Edward Rahe states that, because lamination is such a serious problem, based on Sobolev, at best it would take years of experimentation to do what the Examiner suggests to determine an optimum value of gas by volume. More likely, however, says Mr. Rahe, one skilled in the art of concrete formwork panels would not even bother to make such tests, since Sobolev suggests such panels would delaminate. Thus, a prima facie case of obviousness is not made out for claim 31 because a key limitation of the



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claim, a foam plastic of 32% or more gas by volume, is not disclosed in the prior art. MPEP 2143.03. "It is error to ignore specific limitations distinguishing over the references." *In re Glass*, 176 USPQ 489, 491 (CCPA 1973). See also *In re Saether*, 181 USPQ 36, 39 (CCPA 1974) at headnote 1; *Ex parte Petersen*, 228 USPQ 217, 218 (PO Bd Pat App & Inter 1985) at headnote 1; and *In re Fire*, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988) at headnote 3. Further, if a prima facie case of obviousness is made out, the unexpected superiority of the concrete formwork panel according to the invention overcomes it. See MPEP 716.02 - 716.02(g) and 2144.09 and the cases cited therein. Therefore, claim 39 is patentable.


Claims 40 and 41 depend on claim 39, which is patentable; therefore they also are patentable. *In re Fire*, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988) at headnote 4 and MPEP 2143.03. In addition, they recite ranges of gas by volume that are far above any disclosure of Sobolev, and are patentable for that reason also.

Claim 42 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sobolev in view of Fitzgerald et al. This rejection is respectfully traversed for the same reasons as given above in the discussions of claim 1. Further, this claim depends on claim 39, which is patentable; therefore, it also is patentable. *In re Fire*, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988) at headnote 4 and MPEP 2143.03.

In view of the above amendments and remarks, Applicant believes the pending application is in condition for allowance. Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 50-1848, under Order No. 013190.0101PTUS from which the undersigned is authorized to draw.

Respectfully submitted,  
PATTON BOGGS LLP

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